



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/831,139 | 06/21/2001 | Friedrich Mueller | 449122005700 | 9013 |
| 25227 | 7590 | 09/16/2005 | EXAMINER | |
| MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102 | | | HARPER, V PAUL | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2654 | |

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|---------------------|
| | 09/831,139 | MUELLER, FRIEDRICH |
| Examiner | Art Unit | |
| V. Paul Harper | 2654 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 February 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 11-14 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 11-14 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date .

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haavisto et al. (U.S. Patent 5,864,603), hereinafter referred to as Haavisto, in view of Shimada (U.S. Patent 5,222,121), hereinafter referred to as Shimada.

Regarding **claim 11**, Haavisto discloses an apparatus for controlling a telephone with voice commands. Haavisto's apparatus includes the following:

- a speech recognition device configured to recognize acoustic objects, where the acoustic objects comprise at least one of individual letters, combinations of letters or control commands (col. 4, lines 23-27; Figs. 1-3 indicates various states during the speech recognition; col. 6, describes various commands that are recognized: "Cancel," "Yes," "No"); and
- an acoustic device for acoustic output or optical display of recognized acoustic objects (col. 6, lines 23-45, responds "Was the number"), wherein
- if an acoustic object is incorrectly recognized, the speech recognition device subsequently recognizes a first control command causes a speech recognition

algorithm to expect repeated utterance of the incorrectly recognized object (col. 6, line 33-57, answers “No” where the phone will go into state voice control; if the recognition failed The phone responds “Number again, please”), and

- a second control command causes the speech recognition algorithm to output at least one further acoustic object (col. 6, line 33-57, the phone responds “Number again, please”).

But Haavisto does not specifically teach “a recognition probability of the at least one further acoustic object is less than the recognition probability of the previously output acoustic object, but greater than the recognition probability of other acoustic objects.” However, the examiner contends that this concept was well known in the art, as taught by Shimada.

In the same field of endeavor, Shimada discloses a voice recognition dialing unit where if an utterance is misrecognized the user can call the next lower candidate [i.e., necessarily next highest probability] by entering a voice command “NEXT ONE” (col. 4, line 65 through col. 5, line 5; col. 5, lines 15-25; col. 6, lines 15-25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Haavisto by specifically providing the feature, as taught by Shimada, because it is well known in the art at the time of invention that in many cases the next best candidate is the correct recognition result thus simplifying the recognition correction process.

Regarding **claim 12**, Haavisto in view of Shimada teaches everything claimed, as applied above (see claim 11). In addition, Haavisto teaches “recognition of a third control command causes the speech recognition algorithm to assess the last-output object as correctly recognized, ends any output of further objects and/or triggers a function corresponding to the recognized control command” (col. 6, lines 34-40; the user may respond “Yes” ..., there follows a transition to a state Dialing).

Regarding **claim 13**, Haavisto discloses method for controlling a telephone with voice commands. Haavisto’s method includes the following steps:

- providing a recognition algorithm to recognize acoustic objects, where the acoustic objects comprise at least one of individual letters, combinations of letters or control commands (col. 4, lines 23-27; Figs. 1-3 indicates states during the speech recognition; col. 6, describes various commands that are recognized: “Cancel,” “Yes,” “No”)and
- acoustically outputting or displaying recognized acoustic objects (col. 6, lines 23-45, responds “Was the number”),
- wherein if an acoustic object is incorrectly recognized, the recognition algorithm subsequently recognizes a first control command causes a speech recognition algorithm to expect repeated utterance of the incorrectly recognized object (col. 6, line 33-57, answers “No” where the phone will go into state Voice control; if the recognition failed The phone responds “Number again, please”), and
- a second control command causes the speech recognition algorithm to output at least (col. 6, line 33-57, the phone responds “Number again”).

But Haavisto does not specifically teach “one further acoustic object, wherein a recognition probability of the at least one further acoustic object is less than the recognition probability of the previously output acoustic object, but greater than the recognition probability of other acoustic objects, or the further acoustic object is provided by a sequence of entries in a storage device of the device.” However, the examiner contends that this concept was well known in the art, as taught by Shimada.

In the same field of endeavor, Shimada discloses a voice recognition dialing unit where if an utterance is misrecognized the user can call the next lower candidate [i.e., the next highest probability] by entering a voice command “NEXT ONE” (col. 4, line 65 through col. 5, line 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Haavisto by specifically providing the feature, as taught by Shimada, because it is well known in the art at the time of invention that in many cases the next best candidate is the correct recognition result thus simplifying the recognition correction process.

Regarding **claim 14**, Haavisto in view of Shimada teaches everything claimed, as applied above (see claim 13). In addition, Haavisto teaches “the recognition of a third control command causes the speech recognition algorithm to assess the last-output object as correctly recognized, ends any output of further objects and/or triggers a function corresponding to the recognized control command” (col. 6, lines 34-40; the user may respond “Yes” . . . , there follows a transition to a state Dialing).

Response to Arguments

2. Applicant's arguments filed 7/27/05 have been fully considered but they are not persuasive.

3. Applicant asserts on page 4:

The Examiner cites Haavisto as disclosing the claimed invention except for "a recognition probability...or the further acoustic object is provided by a sequence of entries in a storage device of the device." However, the Examiner cites Shimada as disclosing this feature. Specifically, the Examiner states that "Shimada discloses a voice recognition dialing unit where if an utterance is misrecognized the user can call the next lower candidate [i.e., the next highest probability] by entering a voice command "NEXT ONE" (col. 4, line 65 through col. 5, line 5)." *The claimed invention (as amended), on the other hand, requires "a recognition probability of the at least one further acoustic object is less than the recognition probability of the previously output acoustic object, but greater than the recognition probability of other acoustic objects." This is not disclosed by either Haavisto or Shimada. That is, Shimada simply discloses choosing the next candidate in an predetermined order, whereas the claimed invention selects the "candidate" based on a probability (as defined). (Italics added)*

Shimada teaches that during the recognition operation names are selected that resemble the characteristics of the entered name and that those selected are ordered where the ordering is necessarily with the most likely match first, the next most likely match next, etc. (col. 6, lines 15-25, i.e, the recognition operation assigns a likelihood and the options are presented to the user as an ordered list). Thus, Shimada teaches "*a recognition probability of the at least one further acoustic object is less than the recognition probability of the previously output acoustic object, but greater than the recognition probability of other acoustic objects.*"

Citation of Pertinent Art

4. The following prior art made of record but not relied upon is considered pertinent to the applicant's disclosure:

- Markowitz ("Using Speech Recognition," Prentice Hall 1996, pp. 36-38) describes techniques to speech recognition where a similarity assessment (distance metric) is performed during recognition.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

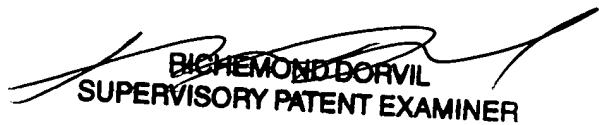
Art Unit: 2654

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/9/2005

V. Paul Harper
Patent Examiner
Art Unit 2654



RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER